Dr. Parsons's Report to the Local Government Board on Scarlet Fever in the Huntingdon Registration District.

George Buchanan,
Medical Department,
13th November, 1880.

The inspection, of which the results are contained in the following report, was ordered in compliance with a request of the Huntingdon Rural Sanitary Authority. On August 28th, 1880, that Authority wrote to the Local Government Board that scarlet fever had been raging since April in the boroughs of Huntingdon and Godmanchester, and was now spreading from these boroughs into the surrounding villages within the jurisdiction of the Huntingdon Rural Sanitary Authority; that the Rural Authority were thus directly interested in every effort being made to stamp it out; and that, moreover, both these boroughs being, for poor law purposes, within their jurisdiction, the care and relief of all the pauper cases fell upon them as Guardians. They therefore requested that an inspector might at once be sent down to investigate the causes of the outbreak, and of its long continuance, and to ascertain whether proper precautions had been taken to stop its spreading. The inspection was commenced forthwith.

General Description.

The Registration District (Union) of Huntingdon, in the county of the same name, has an area of 76,446 acres. The population was, in 1861, 20,518; in 1871, 20,711. With the exception of the boroughs of Huntingdon and Godmanchester, it is for sanitary purposes under the Guardians as Rural Sanitary Authority. The surface in the north-eastern portion of the district is level fenland (peat), but in the neighbourhood of Huntingdon it is slightly undulating, and composed of a stiff blue clay (Oxford clay), with deposits of alluvium and river gravel in the valleys of the Ouse and subsidiary streams. The population, with the exception of the usual tradesmen and professional men, is purely agricultural. The Registration District is divided into four sub-districts, which are also the divisions for which the several Medical Officers of Health act; two of these divisions are, however, held by one officer; and the boroughs of Huntingdon and Godmanchester appoint their Medical Officers of Health independently.

The Huntingdon sub-district, with which this report will be almost exclusively concerned, contains the two boroughs of Huntingdon and Godmanchester, which together form the Parliamentary borough of Huntingdon, but for municipal purposes are distinct; it includes also several villages which are under the jurisdiction of the Huntingdon Rural Sanitary Authority. Huntingdon and Godmanchester are almost contiguous, being divided only by the River Ouse, which is crossed by a bridge. Both places are situated on a bed of river-gravel, resting on the Oxford clay; the site of Godmanchester being very low and flat, that of Huntingdon slightly elevated. There are a carriage manufactory and breweries in Huntingdon which employ some hands; there are also the usual official, professional, and commercial residents of a county town, but the bulk of the population in the sub-district belong to the agricultural class.

The acreage and population of the Sub-district are as follows:—

Place.				Area in Acres.	Population.		
Tiace,				Area in Acres.	1861.	1871.	
Huntingdon Borough	-	-	-	1,116	3,816	4,243	
Godmanchester Borough	-	_	-	4,970	2,438	2,363	
Rural portion -	-	-	-	13,787	3,114	3,099	
Whole Sub-district -	-	-	-	19,873	9,368	9,705	

The Vital Statistics are given in the following Table, the Population being assumed to be stationary:

Births.		De	aths.		s under ear old		Deaths from								
YEAR.		Number.	Rate per 1,000 Population.	Number.	Rate per 1,000 Population.	Number.	Proportion per 100 births.	Small Pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fevers.	Diarrhæa.	Violence.
1871 1872 1873 1874 1875	-	297 286 320 295 274 250 285 259 286 266	30·6 29·5 33·0 30·4 28·2 25·8 29·4 26·7 29·5 27·4	196 178 193 183 189 213 164 173 161	20·2 18·3 19·9 18·8 19·5 21·9 16·9 17·8 16·6 18·1	44 30 48 34 32 30 34 36 37 30	14·8 10·5 15·0 11·5 11·7 12·0 11·9 13·6 13·0 11·3		7 3 - - 4 - -	1 - 17 5 2 - 2	- - - - - - - - - -	4 5 1 - 1 9 1 4 1	18 6 3 10 5 5 3 3 2	7 3 13 6 7 2 4 3 7 5	4 8 9 7 2 9 16* 6 4
Averages Englandand Wales -		282	29·0 35·7	183	18.8	35	12.5	0.08	0.36	0.80	0.02	0.28	0.56	0.58	0.71
Standard Rural Districts -	}		30.2		14.6		10.3	0.06	0.22	0·44 Rates	0·18	0·35 0 per a	0·28	0.49	0.47

The general death-rate in the above table is higher than the true death-rate of the sub-district, owing to the inclusion of deaths of strangers in the Huntingdon County Hospital and the Union Infirmary. The deaths in public institutions in Huntingdon average 30 yearly, but there are no data at hand to show what proportion of these really belong to the sub-district. It will be observed that the general death-rate and the mortality from the several specified causes are considerably below the average of England and Wales, and approach, or even in some instances fall below, the corresponding rates in the standard healthy rural districts. The only exception is in the case of typhoid fever, this disease having been formerly very prevalent in both Huntingdon and Godmanchester, owing to frequent contamination of the drinking-water, which was drawn almost exclusively from shallow wells, many of them in close proximity to privies. During the past few years, however, by the closing of many of the polluted wells, and by the introduction of a public water supply in Huntingdon, and the diversion of the sewage from a watercourse near that town, the prevalence of typhoid fever has been greatly lessened, the deaths during the five years 1875-9 having been less than a third of the number in the preceding five years 1870-74.

Malarial diseases were formerly rife in the district, but have greatly diminished of late years, though they have not wholly disappeared. It is stated by medical men that well-marked cases of ague are not common now in Huntingdon, but that other diseases tend to assume an intermittent type.

Complaints were made both at Huntingdon and Godmanchester of frequent injury by floods. These are attributed partly to the holding up of the river Ouse by weirs for the purposes of mill-power and navigation, partly to neglect to keep the channel clear. It is stated that there is no Conservancy or other Board entrusted with the care of the river; the lock-tolls are private property, but little or no traffic now passes up the river, and the banks which form in the bed of the stream are not removed. A backwater or side-channel which formerly afforded much relief in time of floods is now quite silted up.† In consequence, in wet weather the marshy land by the river is often long under water, and the river sometimes rises into the streets and houses. When the water retires after a flood of long duration, the smell from the submerged land, covered with mud, decaying vegetable matter, and drowned worms and other small animals, is said to be very offensive.

^{* 13} of these 16 deaths resulted from a railway collision at Abbots Ripton.
† Since this Report was written, I understand that at a public meeting in Huntingdon a subscription has been set on foot for the purpose of having this channel cleared out.

SCARLET FEVER.

It is stated by a medical man in large practice in and around Huntingdon, that in his experience it is an uncommon occurrence to be for more than three months at a time without cases of scarlet fever; but it appears from the above table that previous to 1880, the last period in which it attained any noteworthy amount was in 1874-6. In 1874, 17 deaths occurred, viz., 4 in the first quarter, 2 in the second, 1 in the third, and 10 in the fourth. Of these 10, 6 were stated to have occurred in Godmanchester, and 4 in Huntingdon. In 1875 there were 5 deaths, 2 in the second quarter of the year, and 1 in each of the other quarters. No deaths from scarlet fever in the sub-district were registered between the first quarter of 1876 and the last quarter of 1879, when 2 deaths occurred in Abbots Ripton, an outlying village. Three cases of scarlet fever in one family in Godmanchester came under the care of the district Medical Officer in November 1879, but by careful disinfection, and isolation so far as practicable, the disease was prevented from spreading beyond the household attacked. There were also some cases in the autumn of 1879, at Brampton, a village two miles to the south-west of Huntingdon. No deaths from scarlet fever occurred in the first quarter of 1880, although a few cases of the disease occurred during that quarter both in Huntingdon and Godmanchester; and it was not until the latter part of April that the disease became so frequent as to attract attention. The Huntingdon sub-district having been for several years without any extensive prevalence of scarlet fever, a large proportion of the younger children would be found, at the commencement of the epidemic, unprotected against the disease by a previous attack. Hence when scarlet fever had once established itself it would tend to spread for a while in geometrical progression, each infected house becoming a centre of origin to others, until the more susceptible individuals had passed through it.

From this point it will be convenient to speak of the progress of the disease

separately as it affected each sanitary district.

Huntingdon Urban District.—The earliest cases of scarlet fever in the Huntingdon urban district, so far as could be learned, were children attending the British School. The first was a boy living at Sapley, a small place between Huntingdon and Abbots Ripton, who came home ill from school on February 9th. No history of exposure to infection could, after a lapse of six months, be ascertained. Another child at the same school, residing in Huntingdon, began to be ill on February 13th, and a few others in March and the beginning of April, one of which was fatal on April 8th. With this exception the earlier cases were slight, but they were kept away from school as soon as their nature was recognised. From this time the disease began to spread widely through the town. The following table shows the number of new cases attended in each month by the house surgeon of the Huntingdon County Hospital, under whose care the greatest number of cases in Huntingdon came, the dates of invasion of fresh households being shown in a separate line from the dates of the fresh cases.

Month.		April.	May.	June.	July.	Total.	
Cases	-	22	31	38	12	103	
Households	-	8	15	15	8	46	

The fever was at its greatest prevalence in June, and was subsiding at the time of inspection; very few new cases had been attended during August. It was estimated that up to the end of August about 250 cases had occurred in Huntingdon, among which there were 14 deaths, as follows: in April, 1; in May, 2; in June, 7; in July, 2; and in August, 2.

The extension of the disease is no doubt to be ascribed mainly to personal intercommunication between the sick and the healthy. In some cases, families living near together were attacked soon after each other, the children being known to have played together or visited each other's houses. Among the possible means of intercommunication may be mentioned the attendance of children at public day schools. It has been stated that the earliest cases attended a particular school; and again in June a number of children attending another school were attacked together. In more than two-thirds of the cases inquired into, the first to be taken ill in the household was a child attending school. It does not follow, however, that the infection was actually caught in school; it may equally have been contracted on the way thither, or in play hours. Children of school age would be more likely than very young children to mix with other children in different parts of the town. Whit Monday, May 17th, was observed as a general holiday in the town, and the gatherings taking place then may have assisted in spreading scarlet fever. Children suffering from scarlet fever or coming from infected houses, so far as known, were excluded from the schools; but there is always a possibility that slight cases may have escaped observation and been the means of spreading the disease. The greatest prevalence of scarlet fever has been in certain streets, lanes, and courts inhabited by labouring people, and in bad sanitary condition.

With respect to the influence of the sanitary circumstances upon the scarlet fever, it has to be noted that throughout the borough certain conditions commonly occur which not only are calculated to affect injuriously the general health, but probably assist in spreading the disease, and must, certainly, if it should occur, place the patient under circumstances less favourable to recovery. Thus the town is old and closely built, with narrow irrregular courts and alleys. A good many of the cottages are without through ventilation, having no back windows, and no open space save the street or common courtyard in The courts and yards are roughly paved with cobbles or with perforated bricks, in the interstices and holes of which dirt accumulates and foul water lodges, especially around the gullies. The sewers are ill-ventilated, and an offensive smell sometimes proceeds from the gullies. Privy accommodation is deficient in quantity, one privy being commonly allotted to four houses. Some of the privies have ash middens attached, others have vaults beneath them: in either case these receptacles are too large, and are rarely emptied, containing large quantities of stale refuse. They are, in some cases, very near to houses: thus, in a yard behind St. John's Church there are two privies and a large middenstead serving for nine houses, in a dark passage underneath one dwelling-house and abutting on the wall of another. There are no public arrangements for the removal of refuse, and it is found impossible during haymaking and harvest to get farmers to spare their horses and men for the purpose. Hence large accumulations of waste matters are at this time of year general throughout the town; animal and vegetable refuse festering and reeking in the hot sun. There is a public water supply, but shallow wells are still in use, some of them too near to privies, &c.

II. Godmanchester Urban District.—The mode in which scarlet fever began in Godmanchester is obscure. The earliest cases in 1880 were some children who came from London about the end of February, and one of whom was taken ill three days after their arrival. These cases were slight, and soon recovered. They were kept apart from other children, and no others are known to have taken the disease from them. The next cases appear to have occurred in the family of a shopkeeper, the first being a child 14 months old, who was taken ill on May 1st. This child had not been away from home, and was not known to have been in communication with any who had suffered from scarlet fever. The children from London, when well, had been occasionally in the daytime at the next house. The two houses use the same drain, and at the shopkeeper's there is an inside sink disconnected from the drain only by a bell trap. By the beginning of May, however, scarlet fever had established itself in Huntingdon, and as there is frequent communication between the inhabitants of the two places, the infection may have been brought from there. In the beginning of June the disease began to be widely prevalent, and up to the end of August about 80 cases are estimated to have occurred. The district Medical Officer's medical relief book shows that 39 cases have come under treatment, 23 households having been attacked, viz., 11 cases in 9 households in June, 15 cases and 7 fresh households in July, and 13 cases and 7 fresh households in August. The deaths up to the end of August have been 10, viz., 1 in May, 3 in June, 2 in July, and 4 in August. The disease is stated to be now on the decline.

The persons attacked have been mostly the children of labourers, and the disease has unquestionably been conveyed from house to house by the free communication which commonly takes place between neighbours among the working class. Scarlet fever did not break out in all parts of Godmanchester at the same time, but different streets were attacked at different times, a number of houses in the same street being attacked one after another, as if the fever had been carried by persons going from house to house. Several instances of the modes in which this might have been effected came under Thus, at one of the first houses visited, where the children were convalescent from scarlet fever, the mother stated that she was very careful to keep them apart from other children; but, even while we were speaking, some of the convalescents had escaped, and were playing with the neighbours' children. Again, another woman, carrying her own child in her arms, was seen to go into a house to gossip with a neighbour whose children were ill of scarlet fever. A tradesman's wife stated that she had noticed children in her shop whose skin was peeling off after scarlet fever. It was not observed that the children attending any particular school had been attacked with especial frequency; indeed, in a considerable number of households, the child first taken ill did not go to school, or had not been for some weeks previously, the schools having broken up.

Godmanchester, though a corporate town, is practically but an agricultural village. The inhabitants are of a poorer class than those of Huntingdon, being mostly farm labourers. Many of the cottages are old, and of a very wretched description, cramped for space both outside and within, and built of mud or lath and plaster with thatched roofs. The bedrooms are garrets in the roofs, which are of "Mansard" shape, the windows being small and near the floor. Not a few have no through ventilation. The cottage property is stated to be mostly in the hands of numerous small owners, some of whom have only a limited interest in it, and are unable or unwilling to spend money on repairs and improvements. Many of the cottages are consequently in a miserable state of dilapidation. Overcrowding is frequent, there being usually but two small bedrooms, whatever the number, age, sex, or relationship of the members of the family may be, one of the rooms being approached through the other. Under these circumstances the isolation of a case of

scarlet fever is well nigh impossible.

The site of Godmanchester, as before said, is low and flat, but little elevated above the River Ouse which runs past it, and surrounded with marshy land. In wet weather the water covers this marshy land, and sometimes even floods the houses in the main street.

Godmanchester is stated to be drained by sewers constructed of 10-inch field pipes, unventilated, and with very little fall; they are capable of being flushed from the river, and since the outbreak of fever the river water has been allowed to run continually through them in a full stream. Before this was done there were frequent complaints of the evil odour arising from them. The sewers discharge by two outfalls into open ditches; the outlets are nearly covered, owing to the water in the ditches being held up below by mill weirs.

The water supply is derived wholly from shallow wells sunk in the bed of gravel on which the borough stands, and in which water is everywhere found at the depth of a few feet. The wells are commonly within a few yards of cesspits and other foul places, and some of them are polluted; but it is stated that the worst have been closed. Some of the houses have no water supply at all, the inmates having to beg where they can.

Excrement disposal is effected by midden and cesspit privies, commonly, owing to the limited amount of space, very near to the houses. Some were seen which communicated under roofs with the interior of the houses; another was built against a neighbour's house, the filth sometimes oozing through the wall, and several were so situated that the contents, when

removed, had to be carried through a house.

The ashpits throughout the borough were found piled up full of house refuse and offensive animal and vegetable matters. In the absence of a public scavenger, it is impossible at this season of the year to get any one to empty them. At one cleanly kept cottage in which there had been several cases of scarlet fever, one fatal, the backyard which was only 12 feet by 10

and shut in by buildings, contained a wooden cesspit-privy and a huge heap of ashes and decaying vegetables. The occupier stated that the privy was emptied once a year; that when this was done, the ashes were first of all got out and spread upon the surface of the yard, that the privy contents were then ladled out and mixed with them, and that the mixture had to be allowed to remain for two or three weeks to "set" before it could be removed, it having to be carried through the house. In a very filthy courtyard at Duck End, in which a number of cases of scarlet fever have occurred, the middenstead was full of refuse which was also littered about around it. A woman was seen to throw on it the contents of a chamber vessel, which ran off the piled-up heap mingling with the dust of the unpaved surface, doubtless, when dry, to be carried with it into the houses. When we consider that the water with which the skin and clothes of a scarlet fever patient have been washed, and perhaps his liquid discharges, are impregnated with the specific poison, it is evident that conditions such as those described must greatly favour the dissemination of the disease.

III. Huntingdon Rural District.—This district had up to the time of inspection been almost free from scarlet fever, cases being known to have occurred during 1880 in only about seven households, into most of which it was known to have been imported from other districts. The case at Sapley in February has been previously mentioned. A case occurred in July at Great Stukeley, the boy had attended a day school in Huntingdon. Another boy at Little Stukeley was just convalescent at the time of inspection; he used to drive a horse and cart, and had been frequently in Huntingdon before his illness. Two cases were imported into Alconbury, one (fatal) an apprentice, having been sent home ill from Godmanchester; the other, a servant, by rail from London, both from houses in which other cases of scarlet fever had occurred. In neither case were proceedings taken by the Rural Sanitary Authority under § 126 of the Public Health Act.

Scarlet fever also occurred in May in two families at Brampton; the fathers of both had worked in Huntingdon, but the children attended a dame's school in Brampton. There had been previously in Brampton some slight cases of a disorder which was spoken of as measles, but may perhaps have been a mild

form of scarlet fever.

It is hardly necessary in this report to speak of the sanitary condition of the few places visited in the rural district, for although in some cases sanitary defects were noted, there is nothing to show that these defects had any effect in propagating the disease or increasing its severity. Mention however may be made of the scantiness and inferior quality of the water supply of the villages on the clay. There are no springs, and wells yield little water and that so impregnated with sulphuretted hydrogen as to be unfit for most uses. Ponds fed by the surface soakings are the source of supply. The water is muddy, contaminated by decaying vegetable matter and probably sometimes by the droppings of cattle. The storage of rain water in underground cisterns would meet the case, but the fact of many of the cottages having thatch roofs interposes a difficulty in the way of collection.

SANITARY ADMINISTRATION.

I. Huntingdon Urban District.—Sanitary affairs are managed by a committee of the Town Council who have no regular time of meeting, but are called

together when there is any business to transact.

The Town Council have some byelaws, made in 1853, but these relate only to obstructions and misdemeanors in highways, such as are dealt with by the Towns Police Clauses Act. The only byelaw relating to the removal of refuse is one which forbids the carrying of excrement through the streets between the hours of 6 a.m. and 11 p.m. There are no byelaws relating to new buildings, common lodging-houses, or slaughter-houses. In 1878 the Town Council submitted to the Local Government Board for approval a draft code of byelaws stated to have been compiled from those in force in other places of a similar character. These were considered open to objection on various grounds, and the Board recommended that the Model Byelaws should be adopted in their place. The Town Council however considered the model byelaws too stringent and intricate for the requirements of so small a

borough, and the matter has consequently remained in abeyance. The erection of new buildings is therefore unregulated, but not many new houses are erected, as the borough is enclosed on every side by common land, so that few building sites are available. This circumstance would, however, render the temptation greater to build houses without a proper amount of air space.

The Medical Officer of Health, Mr. Oldman, receives 24l. a year, of which half is repaid from the Parliamentary grant. He holds also the office of Medical

Officer of Health for the rural portion of the Huntingdon sub-district.

The Inspector of Nuisances is also under the Local Government Board's Order, and receives 20l. a year salary. He is a man advanced in years. He keeps no books relating to his office nor any record of his proceedings. He states that when a nuisance is complained of, or is found by him to exist, he reports it to the Town Clerk who calls a meeting of the Sanitary Committee to deal with it. Legal proceedings for the abatement of a nuisance appear to have been taken only in one case; the inspector says that he always finds owners and occupiers ready to comply with his requirements, but from the description of the sanitary condition which has been given in an earlier page of this report, it may be inferred that the demands made upon them are not large.

The only public scavenging arrangements are for the cleansing of the public streets. The contractor also undertakes the emptying of privies, and is allowed the use of the water-tight cart belonging to the Corporation, but makes his own charges upon the occupiers, varying, as I was informed, from

10s. to 2l. for each time of emptying.

The measures taken by the Sanitary Authority to check the spreading of scarlet fever have been as follows. Handbills were issued giving directions as to isolation and disinfection, and setting forth the penalties incurred under § 126 of the Public Health Act, 1875, by those who exposed infected persons or things. No proceedings, however, were taken against persons who infringed these provisions, although such cases occurred, for instance a woman, who while in the desquamating stage of scarlet fever left the hospital against the advice of the house surgeon, and walked through the town to her home. Houses in which scarlet fever was known to have occurred were visited either by the Medical Officer of Health, or by the Inspector of Nuisances, Carbolic powder and Condy's fluid were furnished gratuitously to poor persons. After the illness was over the houses were cleansed, the wall paper removed, and the walls limewashed, but fumigations were not generally employed. There is no apparatus for the disinfection of infected clothing by heat.

The Corporation possess a building, called the Pest House, for the isolation of infectious disease, but have made no use of it during the recent scarlet fever epidemic, although it is to be presumed that there were many cases in which hospital isolation would have been advantageous. The site of the hospital is all that can be desired, in an isolated position, yet conveniently near the town, and with a good supply of water at hand. The building itself is believed to be at least 200 years old, and is in much need of repair; it has three floors and two rooms on each floor, with staircase and landings in The rooms on the ground and 1st floors are 7 feet high and the middle. contain each about 1200 cubic feet; those on the topmost floor are mere garrets with sloping sides, the ceiling being less than six feet high; they contain each about 700 cubic feet of space. The Pest House is occupied by a caretaker who resides in it, with his family rent free: he is a hawker by trade, and has five children, besides a girl to take care of the house when he and his wife are away. The caretaker and his family occupy the four lower rooms, leaving only the garrets for the use of patients. Moreover as patients or their friends have to make their own arrangements for nursing, which the caretaker and his wife do not undertake, one of the garrets has to be given up to the nurse, while the patient occupies the other; thus only a single patient can be accommodated at a time. As a matter of fact no patient had been received into the pest house for eight years until August 24th, 1880, when a case was admitted, which turned out to be one of measles, and was discharged on August 30.

The arrangements for the care of the Pest House are evidently utterly unsuitable. The caretaker's children themselves, who attended school in

Huntingdon, suffered from scarlet fever early in the summer, and this was one of the reasons assigned why the Pest House was not made use of. The caretaker is under agreement to give up possession at once, if the Pest House is required, and the services of an efficient nurse could doubtless have been secured by payment, but nothing was done in that direction. The handbills distributed in the town contain no invitation to the public to make use of the accommodation nor information to whom to apply for admission. It is alleged that the public have an idea that the Pest House is only for use in case of small pox, and would refuse to make use of it if suffering from any other disease, but it has not been shown that they would not do so if the place were put into proper repair, and provided with suitable nurses, and if its advantages, under a more euphemious name, were placed before them. The wife of a tradesman in whose house a lodger was ill of scarlet fever, stated that her husband spent a whole day in trying to find out whether he could get the young man removed to any hospital, and when at last he found out that in order to obtain admission to the Pest House, he must make application to the Town Clerk, the patient was too ill to be moved.

II. Godmanchester Urban District.—The Town Council are the Urban Sanitary Authority, and meet quarterly, or whenever there may be any business to

transact.

Certain byelaws relating to street cleansing and the regulation of slaughter houses, upon the model of those framed by the General Board of Health, are believed to be in force within the district, but it does not appear that any action is ever taken under them. Indeed, the copy shown to me was merely a code of suggested byelaws issued by the General Board of Health, and bore neither the seal of the corporation nor the signature of the Secretary of State. It appears, however, that in 1853, the General Board of Health had before them some byelaws for Godmanchester, and returned them to the Home Office, stating that "there does not appear to be anything in them to call for objection or remark."

There are no public scavenging arrangements.

Mr. H. Lucas, District Medical Officer, is Medical Officer of Health under the Local Government Board's Order. He makes inspections in the district and

visits houses where infectious disease has occurred.

Mr. Worley, Inspector of Nuisances and Surveyor, receives a salary of 30*l.*, no part of which is repaid from the Parliamentary grant. His duties relate chiefly to the repair of roads, and he keeps no books relating to the inspection of nuisances. No proceedings have been taken for the abatement of nuisances, nor under § 126 of the Public Health Act. Disinfectants have been furnished for use in households where scarlet fever has existed; handbills similar to those in Huntingdon have been distributed, enjoining the use of precautionary measures; and the cleansing and limewashing of infected houses has been seen to; but the Medical Officer of Health states that it has not been found generally practicable to fumigate them, as the occupants have nowhere to go to while their house is undergoing the process. There is no hospital accommodation, nor any disinfecting apparatus for clothing.

III. The sanitary administration of the Huntingdon rural district has already been sufficiently alluded to.

There is no hospital accommodation available for infectious diseases in this

district also.

I met the chairman and officers of the Huntingdon Rural Sanitary Authority, and conferred with them as to the measures taken for the prevention of the spread of scarlet fever. I found that the disinfection of infected houses had been seen to; that, in the cases where the disease had been introduced from other districts, it had not spread from the person first attacked to others; and that the district was then practically free from scarlet fever. I recommended that, as a warning, proceedings should be taken against persons who expose themselves when in a state to spread infection contrary to § 126 of the Public Health Act.

H. FRANKLIN PARSONS.

Local Government Board, September, 1880.

Recommendations.

Huntingdon Urban District.

1. Hospital accommodation should be made available for the lodgment of persons suffering from infectious diseases who cannot be properly treated at their own homes. The Authority are fortunate in possessing at any rate an excellent site for a hospital, but if the present building be retained it will require considerable alterations to render it suitable for the purpose. The Authority will do well to be guided in the matter by the opinion of their Medical Officer of Health and of an architect who has paid attention to hospital construction. Proper arrangements should be made for the management of the hospital and the care of the patients. In connexion with the hospital should be provided an ambulance for the conveyance of patients, and an oven for the disinfection of clothing and bedding by heat. The latter (with due precautions in the removal) might also be made available for the disinfection of the clothing and bedding of cases treated at home.

2. The disinfection, by fumigation and otherwise, of dwellings invaded by scarlet fever, and of articles therein likely to retain infection, should in every

case be carefully carried out under medical supervision.

3. Persons exposing themselves in public places while suffering from dangerous infectious disease should be proceeded against under § 126 of the

Public Health Act, 1875.

4. The abatement of nuisances, excremental and other, should receive the careful attention of the Authority. Diligent inspection should be made, especially of the parts of the borough inhabited by the poorer classes, and a record kept of nuisances observed, with a view to follow them up until abated. Surface cleanliness should receive attention. Privies and ashpits which from position or construction give rise to nuisance should be removed or altered. An adequate number of privies should be provided. The removal of excrement and house refuse should be undertaken by the Authority, and carried out frequently and regularly. Care should be taken that, in the erection of new privies and ashpits and in the alteration of existing ones, the receptacles are made water-tight, and of a size no greater than is necessary to contain the accumulation which may collect during the intervals of scavenging.

For the principles which should be observed in the construction and management of privies the Authority should consult the Report to the Local Government Board "On certain means of preventing excrement nuisances in

towns and villages."

5. Further ventilation should be provided for the public sewers. Private drains should also be ventilated and disconnected from the interior of houses.

6. By elaws should be made with respect to such matters as the Authority are empowered by the Public Health Act to regulate, and more especially with regard to the erection of new buildings, in order to avoid the repetition in the future of such errors in construction as are to be found in many of the existing houses in Huntingdon.

The Town Council will do well to adopt the Model Byelaws issued by the Local Government Board, with such adaptations as local circumstances may

render necessary or desirable.

Godmanchester Urban District.

1. All houses which, from faulty construction, want of ventilation, or disrepair, are in such a state as to be a nuisance or injurious to health, should be closed until they have been rendered fit for habitation. Such as cannot be rendered fit for habitation should not be suffered to be occupied. Steps should be taken to put down overcrowding.

2. Byelaws should be adopted with regard to the prevention of nuisances, the construction of new buildings, and the regulation of common lodging-houses and slaughter-houses. The Model Byelaws of the Local Govern-

ment Board should be consulted.

3. Constant attention should be paid to the sewers to keep them in working order and free from deposit. Proper ventilation should be provided for them, and all direct communication between the interior of houses and the drains should be severed. The question of providing more efficient sewers with a better outfall should receive the consideration of the Town Council.

4. All houses in the district should be furnished with a sufficient supply of wholesome water. If practicable the Authority should procure for their district the advantage of a public service. Wells of which the water is

contaminated should be closed.

5. Privies in close contiguity to houses should be removed. Privies and ashpits that are so constructed as to be a nuisance should be re-constructed on improved principles, for which the Authority should consult the Report to the Local Government Board "On certain means for preventing excrement nuisances in towns and villages." The more important of these principles as regards Godmanchester are that the receptacle should be of the smallest practicable dimensions and water-tight; that it should be so constructed as to permit the daily covering of excrement with ashes, and so roofed in as to afford free ventilation while excluding rain.

In situations where the privy is unavoidably near a house, or where there are no external means of access to it for emptying, some form of privy with

movable receptacle will probably be found the best.

Arrangements should be made for the frequent systematic removal of excrement and ashes.

6. The abatement of nuisances, from whatever cause arising, should be

thoroughly carried out.

7. The Town Council should provide, either alone or in conjunction with some other Authority, a place for the reception of cases of infectious disease which have no proper accommodation, or which cannot be effectually isolated at their own homes, and a disinfecting stove for the disinfection by heat of infected clothing. The provisions of the Public Health Act with respect to infectious diseases should be duly carried out.

Huntingdon Rural District.

1. The Authority should possess one or more places into which persons suffering from infectious sickness may be removed. These places should be conveniently situated as regards the principal centres of population. The accommodation to be provided need not be on a large or costly scale, but it is essential that it should be always in readiness, so as to be available for the isolation of the earliest cases of infectious disease, which might otherwise give rise to an epidemic. For the principles to be held in view, the Authority should consult the Local Government Board's Memorandum on Hospital Accommodation to be given by Sanitary Authorities. They should provide also an apparatus for the disinfection of infected clothes. They may find it convenient to join for these purposes with some other Authority.

2. Procedings should be taken, in accordance with § 126 of the Public Health Act, against persons who expose themselves in public places while

suffering from dangerous infectious diseases.

3. The Authority should use the powers which they possess under the Public Health Act, 1875 and the Public Health (Water) Act, 1878, to secure for each house in their district an adequate supply of wholesome water.